

WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:
  - input means for inputting image information;
  - determination means for determining whether an input image contains a mark indicative of a specific image;
  - setting means for setting allowable time necessary for the determination to be made by said determination means; and
- 10 control means for terminating determination processing by said determination means in a case where it cannot be determined whether the input image contains the mark indicative of a specific image within the allowable time set by said setting means.
- 15 2. The apparatus according to claim 1, wherein said determination means executes determination processing whenever precision of sampling of the input image is raised in stages and, if the mark indicative of a specific image is contained in the input image, suspends subsequent determination processing at the prevailing stage of sampling precision.
- 20 3. The apparatus according to claim 2, wherein sampling precision of said determination means narrows, in stages, intervals at which the input image is

sampled.

4. The apparatus according to claim 1, wherein said determination means executes determination processing whenever determination precision is raised in stages by increasing a number of quantization bits of the image data in stages and, if the mark indicative of a specific image is contained in the input image, suspends subsequent determination processing at the prevailing stage of determination precision.

5. The apparatus according to claim 2, wherein a threshold value for determining in said determination means whether the mark indicative of a specific image is contained in the input image is provided for each stage of precision.

6. The apparatus according to claim 1, further comprising output means for outputting the image, which has been input by said input means, to printing means; wherein said output means outputs the input image in a case where the mark indicative of a specific image is not detected in the input image within the allowable time.

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7. The apparatus according to claim 5, wherein a period

of time which satisfies the following relation is set as the allowable time:

$$Tav \leq (M-H)/m$$

where  $H$  represents time needed to construct an output

5 image by said output means,  $M$  represents a critical time at which the printing operation by said printing means attains a waiting state in which said printing means stands by for reception of data,  $m$  represents number of times determination processing is executed by said 10 determination means, and  $Tav$  represents the allowable time per determination processing.

8. The apparatus according to claim 6, wherein output by said output means is suspended in a case where said 15 determination means determines that the mark indicative of a specific image is contained in the input image.

9. The apparatus according to claim 1, wherein the allowable time is dynamically variable.

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10. The apparatus according to claim 1, wherein the mark indicative of a specific image includes a watermark.

25 11. A host computer incorporating the image processing apparatus set forth in claim 1.

12. A printing apparatus incorporating the image processing apparatus set forth in claim 1.

5 13. An image processing method comprising:  
an input step of inputting image information;  
a determination step of determining whether an image obtained by subsampling the input image contains a mark indicative of a specific image;  
10 a setting step of setting allowable time necessary for the determination to be made at said determination step; and  
a control step of terminating determination processing at said determination step in a case where it  
15 cannot be determined whether the input image contains the mark indicative of a specific image within the allowable time set at said setting means.

14. A storage medium storing program code capable of  
20 being read in and executed by a computer, comprising:  
program code of an input step of inputting image information;  
program code of a determination step of determining whether an image obtained by subsampling the input image  
25 contains a mark indicative of a specific image;  
program code of a setting step of setting allowable

time necessary for the determination to be made at said determination step; and

program code of a control step of terminating determination processing at said determination step in a  
5 case where it cannot be determined whether the input image contains the mark indicative of a specific image within the allowable time set at said setting means.

15. The storage medium according to claim 14, wherein a  
10 program constituted by the program code of each of said steps is a printer-driver program.